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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/656,626 09/07/00 CLARK

S 43420/118

EXAMINER

IM52/0814

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ART UNIT

PAPER NUMBER

1742

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08/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application N .

09/656,626

Applicant(s)

CLARK ET AL.

Examiner

Janelle Combs-Morillo

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28, which is drawn to an Al-Mg-Si 6000 series composition, is dependent on claim 26, which is drawn to "a 8090 aluminum alloy". Claim 28 fails to further limit claim 26. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 33-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Shaffer et al (US 6,248,189).

Shaffer et al teaches a 6000 series (Table 1) cast (column 5 lines 10-11) aluminum alloy exhibiting: elongation =11%, UTS =59.3 ksi, YS =53.7 ksi (Table 3 , example 3B).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17, 18, 20, 21, 25, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroger (US 3,791,876).

Kroger teaches an aluminum alloy product (column 1 lines 32-38), as presently claimed in instant claim 17, wherein said product is an Al-Zn alloy (instant claims 21 and 30) “substantially free from porosity” (instant claim 18, see Kroger column 1 lines 67-68) that falls within the compositional limits of AA7075 (instant claim 25). Kroger teaches that said Al-Zn alloy exhibits an elongation of 7% (Table 1).

Kroger does not teach (a) a process of producing said aluminum alloy by centrifugally casting and then hot isostatically processing (instant independent claim 17), (b) said alloy has “sufficient fluidity as a melt for centrifugal casting” (instant claim 20), or (c) “a tensile strength, a yield strength and an elongation meeting ASTM wrought specifications” (instant claim 32). However, with regard to the process steps (item (a)), it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being claimed, differing only in the manner by which it is made, the burden falls to applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art. See *In re Brown* (173 USPQ 685) and *In re Fessman* (180 USPQ

Art Unit: 1742

524). Concerning item (b), the examiner asserts that because the prior art teaches substantially the same alloy product as presently claimed, then substantially the same characteristics, such as fluidity, would be expected to be present. Concerning item (c), the examiner asserts that given the disclosure of Kroger (who teaches a combined casting and forging of aluminum alloys, abstract), it would have been within the level of one of ordinary skill in the art to achieve a TS, YS, and elongation within the ASTM wrought specifications.

Because Kroger teaches an aluminum alloy product substantially the same as the presently claimed product, it is held that Kroger has created a prima facie case of obviousness of the presently claimed invention.

7. Claims 17, 18, 21, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaney et al (US 5,520,754).

Yaney et al teaches an aluminum alloy product (column 1 line 6), as presently claimed in instant claim 17, wherein said product is an Al-Li alloy (instant claim 21) with porosity eliminated by HIPing (instant claim 18, see Yaney column 4 lines 16-17). In Figures 11-12 and column 9 lines 47, Yaney teaches the DC casting of AA8090 (instant claim 26). Yaney teaches that said Al alloy exhibits an elongation up to 8% (Fig. 4c).

Yaney does not teach (a) a process of producing said aluminum alloy by centrifugally casting and then hot isostatically processing (instant independent claim 17), (b) said alloy has "sufficient fluidity as a melt for centrifugal casting" (instant claim 20), or (c) "a tensile strength, a yield strength and an elongation meeting ASTM wrought specifications" (instant claim 32). Concerning item (a), as stated above, it is well settled that a product-by-process claim defines a product, and applicant has not shown that the presently claimed product is materially different

Art Unit: 1742

from that disclosed in the prior art. Concerning item (b), the examiner asserts that because the prior art teaches substantially the same alloy product as presently claimed, then substantially the same characteristics, such as fluidity, would be expected to be present. Concerning item (c), the examiner asserts that given the disclosure of Yaney (who teaches a combined DC casting and HIPping of aluminum alloys), it would have been within the level of one of ordinary skill in the art to achieve a TS, YS, and elongation within the ASTM wrought specifications.

Because Yaney teaches an aluminum alloy product substantially the same as the presently claimed product, it is held that Yaney has created a prima facie case of obviousness of the presently claimed invention.

8. Claims 17-21, 23, 24, 27, 28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al (US 6,120,625).

Zhou et al teaches an aluminum alloy product (column 4 line 8), as presently claimed in instant claim 17, wherein said product is preferably AA6061 (instant claims 21, 23, 24, 27, and 28) with porosity eliminated by sintering (column 3 lines 12-13, column 6 line 23). Yaney teaches that said Al alloy exhibits an elongation up to 8% (Fig. 4c). Zhou teaches spheroidal particles that have an average grain size of 30-150 μm , which overlaps the presently claimed grain size in instant claim 19.

Zhou does not teach (a) a process of producing said aluminum alloy by centrifugally casting and then hot isostatically processing (instant independent claim 17), (b) said alloy has "sufficient fluidity as a melt for centrifugal casting" (instant claim 20), or (c) "a tensile strength, a yield strength and an elongation meeting ASTM wrought specifications" (instant claim 32). Concerning item (a), as stated above, it is well settled that a product-by-process claim defines a

Art Unit: 1742

product, and applicant has not shown that the presently claimed product is materially different from that disclosed in the prior art. Concerning item (b), the examiner asserts that because the prior art teaches substantially the same alloy product as presently claimed, then substantially the same characteristics, such as fluidity, would be expected to be present. Concerning item (c), the examiner asserts that given the disclosure of Zhou (who teaches a combined sintering and extruding of aluminum alloys), it would have been within the level of one of ordinary skill in the art to achieve a TS, YS, and elongation within the ASTM wrought specifications.

Because Zhou teaches an aluminum alloy product substantially the same as the presently claimed product, it is held that Zhou has created a prima facie case of obviousness of the presently claimed invention.

9. Claims 17, 18, 20-22, 29, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pickens et al (US 5,032,359).

Pickens teaches an aluminum alloy product (abstract), as presently claimed in instant claim 17, wherein said product is preferably an Al-Cu alloy (instant claims 21 and 29) with negligible porosity (instant claim 18, see Pickens column 9 lines 8-9, 26-27). Pickens teaches an Al-Cu-Li alloy composition (Table 1) that overlaps the alloy composition as presently claimed in claim 22. Pickens teaches that said Al alloy exhibits an elongation $\geq 4\%$ (instant claim 31, see Pickens Fig. 18).

Pickens does not teach (a) a process of producing said aluminum alloy by centrifugally casting and then hot isostatically processing (instant independent claim 17), (b) said alloy has “sufficient fluidity as a melt for centrifugal casting” (instant claim 20), or (c) “a tensile strength, a yield strength and an elongation meeting ASTM wrought specifications” (instant claim 32).

Art Unit: 1742

Concerning item (a), as stated above, it is well settled that a product-by-process claim defines a product, and applicant has not shown that the presently claimed product is materially different from that disclosed in the prior art. Concerning item (b), the examiner asserts that because the prior art teaches substantially the same alloy product as presently claimed, then substantially the same characteristics, such as fluidity, would be expected to be present. Concerning item (c), the examiner asserts that given the disclosure of Pickens (who teaches a casting and extruding of aluminum alloys, column 14 lines 49-50), it would have been within the level of one of ordinary skill in the art to achieve a TS, YS, and elongation within the ASTM wrought specifications.

Because Pickens teaches an aluminum alloy product substantially the same as the presently claimed product, it is held that Pickens has created a prima facie case of obviousness of the presently claimed invention.

10. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al (US 6,248,189).

As stated above, Shaffer et al teaches a 6000 series cast aluminum alloy that has a TS, YS, and elongation within the presently claimed ranges. Shaffer does not teach the hardness of said alloy. However, because Shaffer teaches substantially the same 6000 series aluminum alloy product as presently claimed, then substantially the same properties, such as hardness, are held to be present. It is held that Shaffer et al has created a prima facie case of obviousness of the presently claimed invention.

Art Unit: 1742

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (703) 308-4757. The examiner can normally be reached on 7:30 am- 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7719 for regular communications and (703) 305-7719 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

**GEORGE WYSZOMIERSKI
PRIMARY EXAMINER**

jcm
August 10, 2001